

**PATENT**

**IN THE UNITED STATES PATENT & TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS & INTERFERENCES**

Applicant:	KUCHIBHOTLA	)	
		)	
Appl. No.	10/680,522	)	Examiner C. Appiah
		)	
Confirm. No.	5055	)	Art Unit 2686
		)	
Filed:	7 October 2003	)	Atty. Docket No. CS23738RL
		)	
Title:	"Wireless Radio Network Resource Sharing Among Core Networks And Methods"		

**APPEAL BRIEF UNDER 37 C.F.R. § 43.37(c)**

Assistant Commissioner for Patents  
Alexandria, Virginia 22313

Sir:

**Real Party In Interest**

The real party in interest is Motorola Inc., by virtue of an assignment duly executed by the named inventor(s) and recorded in the Patent Office.

**Related Appeals & Interferences**

There are no related appeals of interferences.

### **Status of Claims**

Claims 1-35 are pending.

Claims 1-13 and 18-24 stand allowed. Claims 17, 29 and 31 were indicated as being allowable but stand objected to for dependence on rejected bas or intermediate claims.

Claims 36-38 are canceled.

Claims 14-16, 25-28, 30 and 32-35 are finally rejected and are the subject of the instant appeal. The appealed claims are reproduced in the Claims Appendix.

### **Status of Amendments**

The claims have not been amended subsequent to the mailing of the final Office action on 22 April 2008.

### **Summary of Claimed Subject Matter**

Claim 14 is drawn to method in a communication device comprising receiving system information, the system information including pointer information indicating where the communication device may obtain information about multiple core networks sharing a common access network from which the system information was received, and attempting to connect to one of the multiple core networks using the information about multiple core networks sharing the common access network from which the system information was received. Page 16, line 7 – page 17, line 6 & FIG. 8.

Claim 25 is drawn to a method in a communication device comprising receiving information about multiple core networks sharing a common access network, the information including at least one of identities of at least some of the multiple core networks sharing the common access network, core network domain information, information on services supported by at least some of the multiple core networks sharing the common access network, and selecting a core network to which the communication device attempts to connect using the information received. Page 12, line 6 – page 14, line 15 & FIG. 5.

Claim 30 is drawn to a wireless communications system information message stored on a computer-readable medium, the communications system information message comprising an information block including a pointer to a location where identities for multiple wireless communications core networks sharing a common access network may be obtained. Page 15, line 13 – page 16, line 6 & FIG. 7.

Claim 32 is drawn to a wireless communications system information broadcast message stored on a computer-readable medium, the communications system information broadcast message comprising an information block including a pseudo network identity identifying multiple core networks sharing a common access network. Page 6, line 15 – page 7, line 5 & FIG. 2.

Claim 33 is drawn to a wireless network connection request message stored on a computer-readable medium, the network connection request message comprising an information block including a data field for indicating that a network entity may select, on behalf of a communication device, one of a plurality of core networks sharing a common access network. Page 15, lines 1-12.

Claim 34 is drawn to a method in a communications network entity, the method comprising receiving preferred core network information from a communication device, selecting a core network for the communication device, and giving consideration to the preferred core network information received from the communication device when selecting the core network for the communication device. Page 10, lines 3-13.

### **Grounds of Rejection for Review on Appeal**

Whether Claims 27-33 comply with 35 USC 101.

Whether Claims 27-33 comply with 35 USC 112, first paragraph.

Whether Claims 14-17, 25 and 34-35 stand are anticipated by U.S. Publication No. 2002/0193139 (Mildh) under 35 USC 102(e).

Whether Claims 14-16, 25, 27-28, 30, 32 and 33 are anticipated by U.S. Patent No. 7,280,516 (Costa) under 35 USC 102(e).

Whether Claims 25-26 are anticipated by U.S. Publication No. 2004/0258019 (Haumont).

### **Arguments re: 35 USC 101 & 112, first paragraph**

#### **Rejection Summary**

Claims 27-33 stand rejected under 35 USC 101.

Claims 27-33 also stand rejected under 35 USC 112, first paragraph, allegedly because there is no support in the original description for the claimed messages "...stored on a computer-readable medium...."

## Discussion

In original Claims 27, 30 and 32, the message was "modulated on a carrier wave". These claims were later amended read that the data structure is "stored on a computer-readable medium" in light of a recent judicial ruling.

The original specification provides support for the generation and transmission of the claimed messages by a network entity and for the receipt of the messages by a user terminal. While the architecture of wireless communication infrastructure and terminals are not disclosed explicitly in the specification, those of ordinary skill in the art understand that the messages at issues are stored, at least momentarily, on a computer readable medium prior to transmission by the network entity and/or upon receipt at the user terminal. FIG. 1 of the subject application illustrates a base station 114 and a wireless user terminal 102 in which such messages would be stored in memory devices. Kindly withdraw the rejections under 35 USC 101 and 35 USC 112, first paragraph.

## **Arguments re: Mildh**

### Rejection Summary

Claims 14-17, 25 and 34-35 stand rejected under 35 USC 102(e) for anticipation by U.S. Publication No. 2002/0193139 (Mildh).

### **Discussion of Claim 14**

Regarding Claim 14, Mildh fails to disclose a

... method in a communication device, the method comprising:  
receiving system information,  
the system information including pointer information indicating  
where the communication device may obtain information about  
multiple core networks sharing a common access network from which  
the system information was received;  
attempting to connect to one of the multiple core networks using  
the information about multiple core networks sharing the common  
access network from which the system information was received.

Claim 14 is directed to providing a communication terminal "pointer information" about multiple core networks that share a common access network. Mildh discloses selection among different access networks, i.e., GERAN or UTRAN access technologies. At paragraph [0009], Mildh discusses providing a mobile station (MS) with operating mode instructions when the MS enters a cell supporting 2G and 3G operation based on MS history. At paragraph [0010], Mildh discusses network selection hysteresis control. In Mildh, at paragraph [0015], access network selection (GERAN or UTRAN) is based on registration information in the HLR wherein the network selects the access technology for the mobile station. At paragraph [0016], Mildh teaches broadcasting a value indicating which access network (GERAN or UTRAN) the MS should camp on. The "pointer information" in Claim 14 refers to "multiple core networks" not an access network. At paragraph [0017], Mildh discloses default operating mode rules. At paragraph [0018], Mildh discloses a network controlled operating mode (2G or 3G) selection for a mobile station, wherein a system information message provides cell specific operating mode selection rules to the mobile station. At paragraph [0019], Mildh discusses system information messages for communicating the mode selection rules to the mobile stations. At paragraphs [0029-32], Mildh discusses system information messages for distributing mode selection rules to

mobile stations entering 3G capable cells. At paragraph [0035], Mildh alternatively permits the terminal to select the technology based on information stored in a SIM card on the terminal. At paragraph [0036], in Mildh, the mobile station selects a mode of operation based on its current mode upon entering a new cell. At paragraphs [0037-38], Mildh discusses the BSC control the operating mode of the mobile station. At paragraph [0039], Mildh discloses that the mode change occurs during a cell change, location area change, routing area change, or service area change. Mildh nevertheless fails to disclose a communication device that receives system information "... including pointer information indicating where the communication device may obtain information about multiple core networks sharing a common access network ..." as in Claim 14. Claim 14 is thus patentably distinguished over Mildh.

#### Discussion of Claim 15

Regarding Claim 15, Mildh fails to disclose in combination with the limitations of Claim 15,

... selecting the one of the multiple core networks to which the communication device attempts to connect using the information about multiple core networks sharing the common access network from which the system information message was received.

In Mildh, at paragraph [0018], the system information message dictates the mobile stations the mode of operation. There is no pointer information about multiple core sharing a common access network. Claim 15 is thus further patentably distinguished over Mildh.

### Discussion of Claim 16

Regarding Claim 16, Mildh fails to disclose in combination with the limitations of Claim 14 "... obtaining an identity for the core network to which the communication device attempts to connect using the pointer information." At paragraph [0016], Mildh teaches broadcasting a value indicating which access network (GERAN or UTRAN) the MS should camp on. As noted, Mildh does not send "pointer information". Moreover, the "pointer information" in Claim 14 refers to "multiple core networks" not an access network. Claim 16 is thus further patentably distinguished over Mildh.

### Discussion of Claim 25

Regarding Claim 25, Mildh fails to disclose a

... method in a communication device, the method comprising:  
receiving information about multiple core networks sharing a common access network,  
the information including at least one of identities of at least some of the multiple core networks sharing the common access network, core network domain information, information on services supported by at least some of the multiple core networks sharing the common access network;  
selecting a core network to which the communication device attempts to connect using the information received.

Mildh discloses selecting among different access networks, i.e., GERAN or UTRAN access technologies. The various passages of Mildh referenced by the Examiner do not support the asserted rejection. At paragraph [0009], Mildh discusses providing a mobile station (MS) with operating mode instructions when the MS enters a cell supporting 2G and 3G



operation based on MS history. At paragraph [0010], Mildh discusses network selection hysteresis control. In Mildh, at paragraph [0015], access network selection (GERAN or UTRAN) is based on registration information in the HLR, wherein the network selects the access technology for the mobile station. The "information" in Claim 25 refers to "multiple core networks" not an access network. Contrary to the Examiner's assertion, there is no disclosure in Mildh that the mobile station receives "... information including at least one of identities of at least some of the multiple core networks sharing the common access network, core network domain information, information on services supported by at least some of the multiple core networks sharing the common access network" as in Claim 25. Claim 25 is thus patentably distinguished over Mildh.

#### Discussion of Claim 34

Regarding Claim 34, Mildh does not disclose a

... method in a communications network entity, the method comprising:  
receiving preferred core network information from a communication device;  
selecting a core network for the communication device;  
giving consideration to the preferred core network information received from the communication device when selecting the core network for the communication device.

Mildh discloses selecting among GERAN or UTRAN technologies. According to Mildh, at paragraph [0015], the selection is based on registration information in the HLR, wherein the network selects the technology for the mobile station. At paragraph [0035], Mildh alternatively

permits the terminal to select the technology based on information stored in a SIM card on the terminal. At paragraph [0036], in Mildh, the mobile station selects a mode of operation based on its current mode upon entering a new cell. At paragraphs [0037-38], Mildh discusses the BSC control the operating mode of the mobile station. At paragraph [0039], Mildh discloses that the mode change occurs during a cell change, location area change, routing area change, or service area change. Contrary to the Examiner's assertion Mildh does not disclose receiving "... preferred core network information from a communication device" and gives "...consideration to the preferred core network information received from the communication device when selecting the core network for the communication device." Claim 34 is thus patentably distinguished over Mildh.

#### Discussion of Claim 35

Regarding Claim 35, Mildh fails to disclose in combination with the limitations of Claim 34 "... receiving the at least one preferred core network from a communication device in a connection request from the communication device." The network in Mildh does not receive "preferred core network information" from the mobile station. Claim 35 is thus further patentably distinguished over Mildh.

#### Arguments re: Costa

#### Rejection Summary

Claims 14-16, 25, 27-28, 30, 32 and 33 stand rejected under 35 USC 102(e) for anticipation by U.S. Patent No. 7,280,516 (Costa).

### Discussion of Claim 14

Regarding Claim 14, Costa fails to disclose a

... method in a communication device, the method comprising:  
receiving system information,  
the system information including pointer information indicating  
where the communication device may obtain information about  
multiple core networks sharing a common access network from which  
the system information was received;  
attempting to connect to one of the multiple core networks using  
the information about multiple core networks sharing the common  
access network from which the system information was received.

Claim 14 is directed to providing a communication terminal with "pointer information" about multiple core networks that share a common access network. Costa discloses a BSS that switches packet transmission from a mobile station (MS) to either a 2G or 3G core network based on the capability of the MS or based on the identity of the cell in which the MS is located. The various passages of Costa referenced by the Examiner do not support the asserted rejection. At col. 2: 13-27, Costa discusses the migration from 2G to 3G networks. At col. 4: 43-51, Costa discusses the factors on which the BSS switches packet transmission from a mobile station (MS) to either a 2G or 3G core network. At col. 5: 56-col. 6: 5, Costa discusses location area (LA) identifiers for overlapping 2G and 3G networks, wherein the first bit in the LA identifier is used to indicate whether the LA is a 2G or 3G network. While Costa refers to the first bit as a pointer, Costa does not disclose that the pointer indicates "... where the communication device may obtain information about multiple core networks sharing a common access network from which the system information was received...." At most, Costa points to a single

network, not "multiple networks". Moreover, there is no disclosure that the MS in Costa attempts "... to connect to one of the multiple core networks using the information about multiple core networks sharing the common access network from which the system information was received." As noted above, in Costa, the BSS directs packets to the 2G or 3G core network based on the MS type or based on the cell in which the MS is located. Claim 14 is thus patentably distinguished over Costa.

#### Discussion of Claim 15

Regarding Claim 15, Costa fails to disclose in combination with the limitations of Claim 15,

... selecting the one of the multiple core networks to which the communication device attempts to connect using the information about multiple core networks sharing the common access network from which the system information message was received.

In Costa, the BSS directs packets to the 2G or 3G core network based on the MS type or based on the cell in which the MS is located. There is no disclosure in Costa that the MS selects the core network. Claim 15 is thus further patentably distinguished over Costa.

#### Discussion of Claim 16

Regarding Claim 16, Costa fails to disclose in combination with the limitations of Claim 14 "... obtaining an identity for the core network to which the communication device attempts to connect using the pointer

information." Costa discloses only that the first bit identifies a 2G or 3G network, not that the MS in Costa obtains an identity of the core network. Claim 16 is thus further patentably distinguished over Costa.

### Discussion of Claim 25

Regarding Claim 25, Costa fails to disclose a

... method in a communication device, the method comprising:  
receiving information about multiple core networks sharing a  
common access network,  
the information including at least one of identities of at least  
some of the multiple core networks sharing the common access  
network, core network domain information, information on services  
supported by at least some of the multiple core networks sharing the  
common access network;  
selecting a core network to which the communication device  
attempts to connect using the information received.

Costa discloses a BSS that switches packet transmission from a mobile station (MS) to either a 2G or 3G core network based on the capability of the MS or based on the identity of the cell in which the MS is located. The various passages of Costa referenced by the Examiner do not support the asserted rejection. At col. 2: 13-27, Costa discusses the migration from 2G to 3G networks. At col. 4: 43-51, Costa discusses the factors on which the BSS switches packet transmission from a mobile station (MS) to either a 2G or 3G core network. At col. 5: 56-col. 6: 5, Costa discusses location area (LA) identifiers for overlapping 2G and 3G networks, wherein the first bit in the LA identifier is used to indicate whether the LA is a 2G or 3G network. While Costa refers to the first bit as a pointer, Costa does not disclose that the pointer

indicates the "... identities of at least some of the multiple core networks sharing the common access network, core network domain information, information on services supported by at least some of the multiple core networks sharing the common access network...." Moreover, there is no disclosure that the MS in Costa selects "... a core network to which the communication device attempts to connect using the information received." As noted above, in Costa, the BSS (not the MS) directs packets to the 2G or 3G core network based on the MS type or based on the cell in which the MS is located. Claim 25 is thus patentably distinguished over Costa.

#### Discussion of Claim 27

Regarding Claim 27, Costa fails to disclose a

... wireless communications system information message stored on a computer-readable medium, the communications system information message comprising:  
an information block,  
the information block including a data field for a number indicating how many core networks share a common access network.

At col. 5: 56-col. 6: 5, Costa discusses location area (LA) identifiers for overlapping 2G and 3G networks, wherein the first bit in the LA identifier is used to indicate whether the LA is a 2G or 3G network. While Costa refers to the first bit as a pointer, Costa does not disclose that the pointer includes "... a data field for a number indicating how many core networks share a common access network ...." At most, Costa points to a single network. Claim 27 is thus patentably distinguished over Costa.

### Discussion of Claim 30

Regarding Claim 30, Costa fails to disclose a

... wireless communications system information message stored on a computer-readable medium, the communications system information message comprising:

an information block,

the information block including a pointer to a location where identities for multiple wireless communications core networks sharing a common access network may be obtained.

At col. 5: 56-col. 6: 5, Costa discusses location area (LA) identifiers for overlapping 2G and 3G networks, wherein the first bit in the LA identifier is used to indicate whether the LA is a 2G or 3G network. While Costa refers to the first bit as a pointer, Costa does not disclose that the pointer identifies "... a location where identities for multiple wireless communications core networks sharing a common access network may be obtained." At most, Costa points to a single network. Claim 30 is thus patentably distinguished over Costa.

### Discussion of Claim 32

Regarding Claim 32, Costa fails to disclose a

... wireless communications system information broadcast message stored on a computer-readable medium, the communications system information broadcast message comprising:

an information block,

the information block including a pseudo network identity identifying multiple core networks sharing a common access network.

At col. 5: 56-col. 6: 5, Costa discusses location area (LA) identifiers for overlapping 2G and 3G networks, wherein the first bit in the LA identifier is used to indicate whether the LA is a 2G or 3G network. While Costa refers to the first bit as a pointer, Costa does not disclose that the pointer includes "... a pseudo network identity identifying multiple core networks sharing a common access network." At most, Costa points to a single network. Claim 32 is thus patentably distinguished over Costa.

### Discussion of Claim 33

Regarding Claim 33, Costa fails to disclose a

... wireless network connection request message stored on a computer-readable medium, the network connection request message comprising:

an information block,  
the information block including a data field for indicating that a network entity may select, on behalf of a communication device, one of a plurality of core networks sharing a common access network.

At col. 5: 56-col. 6: 5, Costa discusses location area (LA) identifiers for overlapping 2G and 3G networks, wherein the first bit in the LA identifier is used to indicate whether the LA is a 2G or 3G network. While Costa refers to the first bit as a pointer, Costa does not disclose that the pointer includes "...a data field for indicating that a network entity may select, on behalf of a communication device, one of a plurality of core networks sharing a common access network." That the BSS in Costa selects the core network to which packet are directed does not correspond to an indication to the MS that the BSS



will make such a selection. Claim 33 is thus patentably distinguished over Costa.

### **Arguments re: Haumont**

#### **Rejection Summary**

Claims 25-26 stand rejected under 35 USC 102(e) for anticipation by U.S. Publication No. 2004/0258019 (Haumont).

#### **Discussion of Claim 25**

Regarding Claim 25, Haumont fails to disclose a

... method in a communication device, the method comprising:  
receiving information about multiple core networks sharing a common access network,  
the information including at least one of identities of at least some of the multiple core networks sharing the common access network, core network domain information, information on services supported by at least some of the multiple core networks sharing the common access network;  
selecting a core network to which the communication device attempts to connect using the information received.

At paragraph [0006], Haumont discusses forwarding an MS terminal identity between core networks sharing a common RAN. At paragraph [0018], Haumont discusses a network element that extracts a terminal (MS) identity from a signaling message generated at a RAN. At paragraph [0038] Haumont discusses forwarding an MS terminal identity

between core networks sharing a common RAN when the MS send an initial message to the core network or when the MS contact the wrong core network, or when the MS establishes a call through the other core network. At paragraph [0041], Haumont discusses a routing area update or other attach message routed to the core network. At paragraph [0043], Haumont discusses how the core network evaluates the attach message from the MS to determine whether it is the appropriate node to serve the MS. Contrary to the Examiner's suggestion, Haumont does not disclose a communication device that receives "... information including at least one of identities of at least some of the multiple core networks sharing the common access network, core network domain information, information on services supported by at least some of the multiple core networks sharing the common access network...." Moreover, Haumont does not disclose a communication device that selects "... a core network to which the communication device attempts to connect using the information received." Claim 25 is thus patentably distinguished over Haumont.

### **Prayer For Relief**

Kindly reverse and vacate the rejections of claims, in view of the discussion above, with instructions for the Examiner to allow said Claims to issue in a United States Patent without further delay and provide other relief warranted.

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Respectfully submitted,

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## **CLAIMS APPENDIX**

14. (Original) A method in a communication device, the method comprising:

receiving system information,

the system information including pointer information indicating where the communication device may obtain information about multiple core networks sharing a common access network from which the system information was received;

attempting to connect to one of the multiple core networks using the information about multiple core networks sharing the common access network from which the system information was received.

15. (Original) The method of Claim 14,

selecting the one of the multiple core networks to which the communication device attempts to connect using the information about multiple core networks sharing the common access network from which the system information message was received.

16. (Original) The method of Claim 14, obtaining an identity for the core network to which the communication device attempts to connect using the pointer information.

25. (Previously Presented) A method in a communication device, the method comprising:

receiving information about multiple core networks sharing a common access network,

the information including at least one of identities of at least some of the multiple core networks sharing the common access network, core network domain information, information on services supported by at least some of the multiple core networks sharing the common access network;

selecting a core network to which the communication device attempts to connect using the information received.

26. (Original) The method of Claim 25, receiving the information in response to an unsuccessful core network connection attempt.

27. (Previously Presented) A wireless communications system information message stored on a computer-readable medium, the communications system information message comprising:

an information block,

the information block including a data field for a number indicating how many core networks share a common access network.

28. (Previously Presented) The wireless communications system information message of Claim 27, the information block is a core network-identifying portion of the system information message.

30. (Previously Presented) A wireless communications system information message stored on a computer-readable medium, the communications system information message comprising:

an information block,

the information block including a pointer to a location where identities for multiple wireless communications core networks sharing a common access network may be obtained.

32. (Previously Presented) A wireless communications system information broadcast message stored on a computer-readable medium, the communications system information broadcast message comprising:

an information block,

the information block including a pseudo network identity identifying multiple core networks sharing a common access network.

33. (Previously Presented) A wireless network connection request message stored on a computer-readable medium, the network connection request message comprising:

an information block,

the information block including a data field for indicating that a network entity may select, on behalf of a communication device, one of a plurality of core networks sharing a common access network.

34. (Original) A method in a communications network entity, the method comprising:

receiving preferred core network information from a communication device;

selecting a core network for the communication device;

giving consideration to the preferred core network information received from the communication device when selecting the core network for the communication device.

35. (Original) The method of Claim 34, receiving the at least one preferred core network from a communication device in a connection request from the communication device.

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## **EVIDENCE APPENDIX**

(None)



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## **RELATED PROCEEDINGS APPENDIX**

(None)